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AGENDA ITEM 6b

TO: MEMBERS OF THE INVESTMENT COMMITTEE

I. SUBJECT: Risk Management Quarterly Update

II. PROGRAM: Total Fund

III. RECOMMENDATION: Information

IV. ANALYSIS:

Introduction

The purpose of this item is to provide a quarterly report on Total Fund investment risk to the Investment Committee (the Committee). The format of this item is consistent with the previous quarterly update.

Recent Market Developments

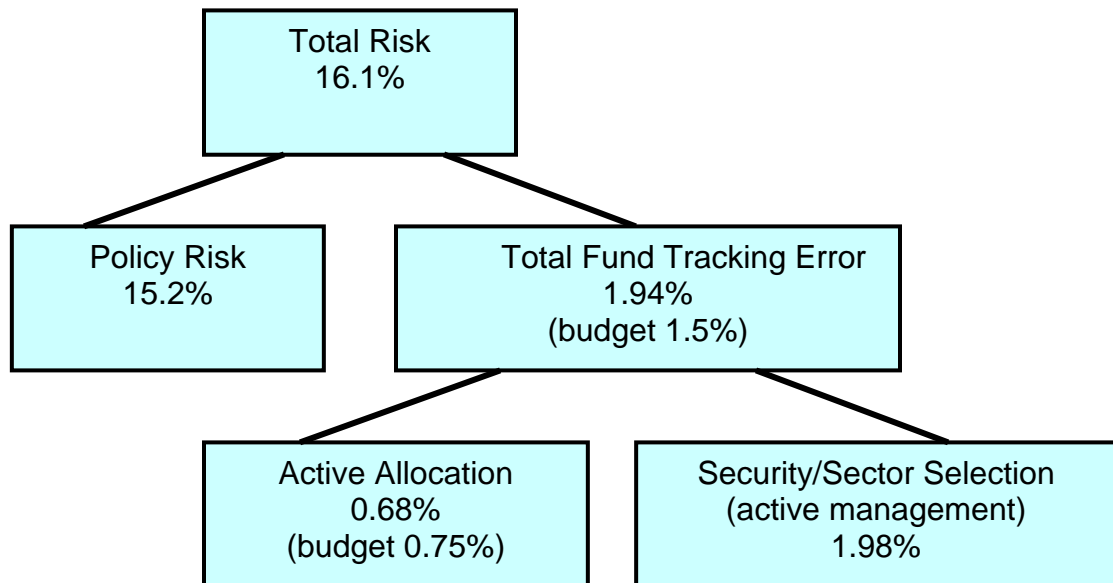
In the June 2010 report, staff noted the increase in market volatility triggered by the sovereign credit risk crisis. Market volatility as measured by the Chicago Board Options Exchange (CBOE) volatility index (VIX) spiked up at that time from 16 to 40 indicating rising levels of risk. The VIX indicates the market's expectation of 30-day forward volatility of the S&P 500 index. VIX has more recently traded in the mid-20s in late August. Investors remain concerned about the strength of the recovery and inflationary fears have been replaced by deflationary fears. As a result, investment capital has recently shifted from risky into safe assets and treasury yields have fallen.

Risk Measures

Total Fund Volatility (Forecast as of June 30, 2010)

Attachment 1 presents CalPERS Total Fund forecast total risk as of June 30, 2010.

CalPERS Total Fund Risk



The above chart shows the projected volatility (standard deviation) for the Total Fund, currently at 16.1%. That total risk amount is composed of two components: policy risk and Total Fund tracking error. Policy risk assumes that the Total Fund is invested in the policy benchmark, and is currently forecast to be 15.2%. Total Fund tracking error is the expected volatility of active returns between the Total Fund and the policy benchmark, currently forecast to be 1.94%. This is above the Total Fund risk budget of 1.5%, but down from the prior quarter's Total Fund tracking error of 2.17%.

Total Fund tracking error is composed of two components: active allocation and security/sector selection (Attachment 2). Diversification allows the total amount (1.94%) to be less than the sum of the components (0.68% and 1.98%). These components can be used to identify the investment decisions that contribute to Total Fund tracking error. The first is active allocation, or the difference in the actual allocation to each asset class compared to the policy allocation. The active allocation risk budget is 0.75%. The current forecast is just within budget at 0.68%, and has been declining in recent quarters as asset class allocation moves closer to policy. The other component (1.98%) is determined by active security selection decisions, as well as sector or strategy bets. These differences can arise from either explicit investment decisions or from benchmark design, comparing actual portfolio holdings and bets to the holdings within the benchmarks. For instance, a decision may be made to be underweight U.S. Treasury securities within Global Fixed Income. On the other hand, commodities exposure will increase tracking error because commodity return volatility is not reflected in the CPI + 4% benchmark for the Inflation-Linked Asset Class (ILAC).

Total Fund Volatility Trends

	Policy Limit	Current June 2010	Last Qtr March 2010	Last Year June 2009	3 Years Ago June 2007
Total Risk (Attachment 1)	Not applicable	16.1%	16.3%	17.6%	7.0%
Policy Risk	Not applicable	15.2%	15.2%	17.8%	6.6%
Total Fund Tracking Error	< 1.5%	1.94%	2.17%	2.9%	0.88%
Active Allocation	< .75%	0.68%	0.74%	0.4%	Not available
Security/Sector	Not applicable	1.98%	1.57%	Not available	Not available

Total Fund forecast total risk is comparable to last quarter and is explained in more detail below. Total Fund tracking error is down slightly, due primarily to asset allocation moving closer to policy weights. The active asset allocation tracking error is down slightly and remains within the policy limit. The tracking error due to security selection and sector tilts has increased, primarily in Global Equity. However, the decline in Total Fund tracking error suggests that the asset allocation bets are offsetting some of the security and sector tilts.

Asset Class Volatility

	Global Equity	Global Fixed Income	Real Estate	AIM	ILAC	Cash	Total Fund
Total Risk	20.8%	7.6%	23.2%	31.0%	18.9%	0.5%	16.1%
Policy Risk	22.4%	6.6%	17.1%	36.7%	4.0%	0.0%	15.2%
Tracking Error	1.77%	3.54%	9.5%	9.54%	17.3%	0.0%	1.94%

Forecast total risk increased slightly for the public asset classes, but decreased for the private asset classes relative to prior quarter. Risk for the private asset classes reflects the general decline in market volatility since the highs of 2009. However, increased risk for the public asset classes reflects the market concerns discussed under the Recent Market Development section.

Global Equity has the lowest tracking error of the publicly traded asset classes because it manages more closely to its benchmark. However, Global Equity tracking error increased by nearly 20 basis points in the last quarter. This increase along with an asset class weight of approximately 50% resulted in a significant contribution to the Total Fund security/sector selection tracking error. Global Fixed Income employs more active management, particularly in sector and security selection, and therefore has a higher tracking error. Real Estate and AIM have significantly higher tracking error due to their active bets in sectors and geographies relative to their benchmarks. High tracking error (both forecast and realized) in the illiquid asset classes reflects both active investment strategies and difficulty in constructing a representative benchmark.

Concentration Measures

The Risk Management Unit monitors Total Fund concentrations across asset classes including country, industry, currency and security asset type weights compared to benchmark weights to identify significant active weights. Concentration measures are reviewed monthly as part of the staff Investment Strategy Group risk report.

Leverage

All programs are currently within their leverage limits.

	Leverage Limit	Current Leverage
Global Equity	10%	2%
Securities Lending	70%	41%
Real Estate	60%	57%
Infrastructure	65%	37%
Forestland	50%	20%

(Further detail provided in Attachment 3)

Counterparty Exposure

The derivative counterparty exposure report (Attachment 4) summarizes net amounts owed to or due from CalPERS investment counterparties. Amounts are aggregated for currency forwards, options, swaps and TBA securities (TBA). TBA are forward settled mortgage-backed securities. Amounts owed to CalPERS result in counterparty risk. This risk is managed by counterparty collateral postings and ongoing monitoring by staff. Counterparties representing significant risk at this point are Morgan Stanley and Bank of America, who each owe CalPERS more than \$20 million each. This risk is monitored on an ongoing basis and is at acceptable levels. As of July 31, 2010, CalPERS owed counterparties a net amount of approximately \$173 million.

Liquidity

In the March 2010 report, staff presented an assessment of the liquidity of the fund. Private holdings were analyzed by examining a pacing model and expected distribution schedules. Staff is currently evaluating refining this approach using statistical estimates of liquidity for the private asset classes.

V. STRATEGIC PLAN:

This item is consistent with Strategic Plan Goal VIII, manage the risk and volatility of assets and liabilities to assure that sufficient funds are available, first, to pay benefits and, second, to minimize and stabilize contributions.

VI. RESULTS/COSTS:

This item provides information to the Committee on the assets and performance of the fund. There are no additional costs associated with this item.

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